

REMARKS

By the above amendment, claim 1, the only independent claim in this application has been amended to clarify features of the present invention, and new dependent claim 8 has been presented, reciting further features of the present invention, as will be discussed below.

The rejection of claims 1, 6 and 7 under 35 USC 103(a) as being unpatentable over Kumar (US 6,591,758) is traversed insofar as it is applicable to the present claims, and reconsideration and withdrawal of the rejection are respectfully requested.

As to the requirements to support a rejection under 35 USC 103, reference is made to the decision of In re Fine, 5 USPQ 2d 1596 (Fed. Cir. 1988), wherein the court pointed out that the PTO has the burden under '103 to establish a prima facie case of obviousness and can satisfy this burden only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references. As noted by the court, whether a particular combination might be "obvious to try" is not a legitimate test of patentability and obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. As further noted by the court, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.

Before discussing the non-applicability of Kumar to the claimed invention, applicants note that claim 1 has been amended to more clearly recite the features of the present invention, as illustrated in Fig. 1 of the drawings of this application. More

particularly, in accordance with the present invention, the railway car drive system includes a first railway car 1 mounting a power generation means 10, a power converter 20 and a driving motor, as described in the specification of this application.

By the present amendment, claim 1 has been amended to recite the feature of at least one second railway car, represented by the cars 2, as illustrated in Fig. 1, mounting a power converter 20 and a driving motor, as illustrated in Fig. 1, connected to said power generation means (10) of said first railway car (1) so as to directly use said power generation means of said first railway car as a power source for said at least one second railway car. As described at page 7, lines 4 - 8, "a power transmission means 40 that connects the power generation means 10 with each power converting means 20 and each power storage means 50 for supplying the power generated at the power generation means 10 to each power converting means 20" (emphasis added). Thus, it is apparent that the power converter 20 of each second railway car 2 directly utilizes the power generation means 10 of the first railway car 1 as a power source for the second railway car.

Claim 1 has been further clarified to recite the feature that a power storage means, (50) as shown in Fig. 1, is mounted on either the first railway car 1 or the at least one second railway car 2 or both, wherein the power storage means stores both the power generated by the power generation means of the first railway car and a regenerative power obtained during braking of the train, or storing either the power generated by the power generation means of the first railway car or the regenerative power, and driving the driving motor via the power converter using as a power source either both of the power generation means (10) and the power storage means (50) or only the power storage means (50) to drive the train. Applicants note that the aforementioned operation is described at page 7, line 20 to page 9, line 2

with regard to power generation and regenerative power, which features are also illustrated in Fig. 3 of the drawings of this application.

Claim 1 also recites the feature of at least one third railway car mounting power storage means, to thereby increase the capacity of the power storage means of the railway car drive system, which feature is described at page 12, lines 21 - 24 of the specification. In accordance with the present invention as further recited in claim 1, a power management means 100, as illustrated in Fig. 1 is provided for controlling the power generated by the power generation means 10 of the first railway car 1 and the storage quantity of the power storage means so as to minimize the power capacity of the power generation means 10 of the first railway car 1. As recited in claim 1, as amended and as described at page 12, lines 21 - 24 of the specification, "said power management means being disposed in each car so as to control each of said power generation means of said first railway car and said power storage means of a respective car independently. New dependent claim 8 recites the feature that the power converter of the at least one second railway car receives power for driving the driving motor thereof directly from the power generation means of the first railway car as the power source thereof.

In applying Kumar to the claimed invention, the Examiner at page 4 of the office action under the heading "Response to Arguments" states:

... the first railway car indirectly powers the second railway car through the power storage tender. Power from the first railway car is stored in the tender and then pulled from the tender to power the second railway car. Therefore, the first railway car indirectly powers the second car through the tender. (emphasis added)

In view of the disclosure of Kumar, and the admission by the Examiner, applicants submit that it cannot be considered obvious from Kumar, other than by a hindsight reconstruction attempt, in disregard of the actual disclosure and teaching of Kumar,

to provide the now recited feature of claim 1 of "at least one second railway car mounting a power converter and a driving motor connected to said power generation means of said first railway car so as to directly use said power generation means of said first railway car as a power source for said at least one second railway car".

(emphasis added). Likewise, the feature of claim 8 of the at least one second railway car receiving the power for driving the driving motor thereof directly from said power generation means of said first railway car as the power source thereof, is not disclosed or taught by Kumar in the sense of 35 USC 103. Thus, applicants submit that claims 1 and 8 recite features not disclosed or taught by Kumar and such claims should be considered allowable with respect to such features considered alone.

With respect to the feature of a power management means being disposed in each car so as to control each of the power generation means of the first railway car and the power storage means of a respective car independently, the Examiner notes "Kumar does not distinctly state that an energy management processor is installed on each car. It would have been an obvious multiplication parts to one of ordinary skill in the art to have installed the processor to each power car so that each car can be monitored separately and therefore, not overload a single processor. Also, the addition of processors would allow for more efficient control of the power on each car as opposed to a single processor and would allow the additional processors to backup the single processor in the event of a malfunction." (emphasis added). Applicants submit that the Examiner has again engaged in a hindsight reconstruction attempt, noting that Kumar only discloses a single energy management system 502 for possibly enabling control of the engine 102, the energy capture and storage 204 and various structures with respect to all of the railway cars. Based upon the disclosure of Kumar, the single energy management system 502 may be considered

to control the energy source 504 in the form of engine 302 of Fig. 3 of Kumar or an external charging source 220 as shown in Fig. 2 of Kumar. However, applicants submit there is no disclosure or teaching in Kumar of the recited features of claim 1 and the dependent claims of this application. Thus, applicants submit that claim 1 and the dependent claims further patentably distinguish over Kumar with respect to the feature of power management means, as recited.

In view of the above amendments and remarks, applicants submit that claim 1 and the dependent claims recite further features of the present invention not disclosed or taught by Kumar in the sense of 35 USC 103 and all claims should be considered allowable thereover. Accordingly, issuance of an action of a favorable nature is courteously solicited.

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 648.43135X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

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